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10/809,364

03/26/2004

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EXAMINER

LOWE, MICHAEL S

ART UNIT

PAPER NUMBER

3652

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-----------------|----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/809,364 | EGAWA, KIYOAKI | |
| | Examiner | Art Unit | |
| | M. Scott Lowe | 3652 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/26/04, 6/13/06, 9/13/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Election/Restrictions

Upon further consideration, the election requirement from the previous office action is withdrawn and all claims 1-17 were examined.

Information Disclosure Statement

The IDS of 9/13/06 and 6/13/06 had references which were already listed on previous IDS submissions. The repeated items were lined thru.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the convex and concave portions of claim 3, the spline bearing of claim 6; and the key and keyway of claim 7, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 is objected to because of the following informalities: line 4 should have an "a" before "first" and line 7 should have an "a" before "second". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1,8,16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, line 14 states "said driving device" but it is unclear whether this refers to the first or second driving device. For sake of examination it is assumed applicant meant "said second driving device".

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Re claim 8, line 3 states "said driving device" but it is unclear whether this refers to the first or second driving device. For sake of examination it is assumed applicant meant "said second driving device".

Claim 16 recites the limitation "said storage media" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "said storage device" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "said storage medium" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,7,11-17, are rejected under 35 U.S.C. 102(b) as being anticipated by Takeshi (2002-025167).

Re claim 1,16,17, Takeshi teaches an apparatus for transporting a storage medium 9 from a holder 20 to a storage device D, said apparatus comprising:

a base 4;

a carriage 30,5 driven by first driving force, said carriage being movable relative to said base 4 between said holder 20 and said storage device D;

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a picker (31,34,etc.) provided on said carriage 30 and driven by second driving force, said picker selectively loading and unloading said storage medium 9;

a first driving device (52,etc.) generating said first driving force;

a second driving device (51A,etc.) provided on said base and generating said second driving force; and

a transmission mechanism (51A,51a,etc.) transmitting said second driving force from said driving device to said picker allowing movement of said carriage.

Re claim 2, Takeshi teaches said transmission mechanism comprises a rotary shaft (51A,etc.) and a coupling device (51a,51b,etc.), and said coupling device is provided on said carriage and transmits torque from said rotary shaft to said picker allowing relative movement between said rotary shaft and said picker along a longitudinal axis of said rotary shaft.

Re claim 3, Takeshi teaches said rotary shaft (51A,etc.) has a convex portion in cross section, said coupling device (51a,51b,etc.) has a concave portion in cross section, and said convex portion of said rotary shaft fits said concave portion of said coupling device.

Re claim 7, Takeshi teaches said rotary shaft 51A and said coupling device (51a,5ab,etc.) engages each other by means of a key 51A and a keyway (51a,5ab,etc.) as the items meet the definition of key and keyway and unlock/actuate the device as shown in figure 4.

Re claim 11, Takeshi teaches said picker comprises a gripper assembly (31,34,etc.) grasping said storage medium 9.

Re claim 12, Takeshi teaches said picker comprises a support structure (31,32,etc.) translating said gripper assembly in a direction toward and away from said holder.

Re claim 13, Takeshi teaches said gripper assembly comprises an arm 34 and a guide 33 guiding said arm, said arm selectively assumes an open position and a closed position, said guide 33 has a curved portion such that said arm moves from said closed position to said open position as said arm approaches said holder and said arm moves from said open position to said closed position as said arm retreats from said holder.

Re claim 14, Takeshi teaches said holder is a library.

Re claim 15, Takeshi teaches said storage medium is housed in a cartridge 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4,5,8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeshi (2002-025167) in view of Ono (JP 03-147564).

Re claims 4,5, Takeshi is silent regarding the rotary shaft having a polygonal/rectangular shape in cross section. Ono teaches that it is known to have the rotary shaft (30,40) having a polygonal/rectangular shape in cross section. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

have modified Takeshi by the general teaching of Ono to have the rotary shaft having a polygonal/rectangular shape in cross section as an equivalent alternative in order to make it easier to grip with a wrench and less likely to have undesired slippage in its couplings.

Re claim 8, Takeshi is teaches the transmission mechanism comprising a gear but is silent regarding a belt. Ono teaches that it is known to have the transmission mechanism (figures 1,3) comprising a gear and (elastic) belt. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Takeshi by the general teaching of Ono to have the transmission mechanism a gear and belt in order save weight relative use of all gear or gear and screw assemblies.

Re claim 9, Takeshi as already modified by Ono teaches said belt being elastic.

Re claim 10, Takeshi as already modified by Ono teaches said belt comprising a spring (the elastic belt itself can be considered a spring and also there are springs 38,44,etc. with the belts.)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeshi (2002-025167) in view of Teramachi (US 4,127,309).

Re claim 6, Takeshi is silent regarding the coupling device comprising a spline bearing. Teramachi teaches spline bearing couplings in order to transmit torque without backlash. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Takeshi by the general teaching of Teramachi to

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have a spline bearing coupling as an equivalent alternative in order to transmit torque without backlash.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Scott Lowe whose telephone number is (571) 272-6929. The examiner can normally be reached on 6:30am-4:30pm M-W; Th work offsite.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

msl


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